

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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(PCT Article 36 and Rule 70)

Applicant's or agent's file reference J.	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/SE01/00789	International filing date (day/month/year) 10/04/2001	Priority date (day/month/year) 11/04/2000

International Patent Classification (IPC) or national classification and IPC
A61L24/02

Applicant**BONE SUPPORT AB et al.**

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 16/10/2001	Date of completion of this report 11.01.2002
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Peris Antoli, B Telephone No. +49 89 2399 8476



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EXAMINATION REPORT**

International application No. PCT/SE01/00789

I. Basis of the report

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
Description, pages:

1-16 as published

Claims, No.:

1-15 as published

Drawings, sheets:

1/2-2/2 as published

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:

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the drawings, sheets:

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N) Yes: Claims 1-15

No: Claims

Inventive step (IS) Yes: Claims 1-15

No: Claims

Industrial applicability (IA) Yes: Claims 1-15

No: Claims

**2. Citations and explanations
see separate sheet**

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

see separate sheet

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Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following document:

D1: WO-A1-0002597

2. Claims 1-15 meet the requirements of Art. 33(2) and 33(3) PCT because their subject matter is new and inventive over the prior art cited in the search report (see below).

2.1 Novelty:

None of the prior art documents cited in the search report discloses a composition comprising an inorganic bone cement powder and a biologically compatible oil, wherein the oil is in intermixture with the cement powder at a concentration of less than 10 wt% of the composition.

2.2 Inventive step:

The subject matter of the present claims 1-15 is based on the finding that the addition of a biologically compatible oil (in the manner and at the concentration indicated in the claim 1) to a conventional injectable inorganic bone cement composition, imparts an improved rheology to the composition without adversely affecting its mechanical strength.

The problem to be solved by the present invention may therefore be regarded as providing means for improving the rheology of injectable inorganic bone cements without adversely affecting their mechanical strength.

The closest prior art D1 (see e.g. claims 1, 9 and 16) discloses a composition for restoring bone tissue in a body, said composition comprising solid particulate calcium phosphate as bone tissue substitute material distributed in a carrier, said carrier comprising at least one phospholipid and water or other liquid, the amount of phospholipid being such that a lamellar liquid crystalline phase is formed when water or the other liquid is provided, either in a pre-forming operation outside the

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body or *in situ* in said body. The specific amounts of phospholipid in the composition, as explicitly disclosed in D1 (see p. 8, l. 22-35 and examples 1-3), are greater than 10 wt%.

Nothing in D1 teaches or suggests that the problem posed in the present application could be solved with a composition according to the present main claim 1.

3. Claims 1-15 satisfy the criterion set forth in Art. 33(4) PCT because their subject matter is susceptible of industrial application.

Re Item VI

Certain documents cited

4. WO-A-00 45867 (filing date: 02.02.99; publication date: 10.08.00)